



Shawangunk Grasslands National Wildlife Refuge
USFWS photo

Purpose and Need for Action

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Introduction and Background

This Draft Comprehensive Conservation Plan (CCP) and Environmental Assessment (EA) for the Shawangunk Grasslands National Wildlife Refuge (refuge) combines two documents, each required by federal law: a CCP, required by the National Wildlife Refuge System Administration Act of 1966, as amended by the National Wildlife Refuge System Improvement Act of 1997 (16 U.S.C. 6688dd, et seq.; Refuge Improvement Act), and an EA, required by the National Environmental Policy Act of 1969 (NEPA).¹

This chapter explains the purpose of and need for preparing a CCP/EA for the refuge. It documents the purposes for which the refuge was established and its land acquisition history, clarifies its vision and goals, describes our planning process and its compliance with NEPA regulations, lists some conservation mandates and plans that guided its development, and defines the key issues, public concerns, and opportunities it addresses.

Chapter 2, “Description of the Affected Environment,” describes the physical, biological and human environment of the refuge.

Chapter 3, “Alternatives, Including the Service-preferred Alternative,” proposes varying management strategies to meet refuge goals, achieve their objectives, and respond to key issues.

Chapter 4, “Environmental Consequences,” evaluates the foreseeable effects of implementing each of the proposed management alternatives on the environment.

Chapter 5, “Consultation and Coordination with Others,” describes in detail how we involved others in the planning process.

Chapter 6, “List of Preparers,” identifies who was involved in preparing this document.

We have also included a glossary of terms, a bibliography, and six appendixes of information that support this plan.

Our proposed action is to develop a CCP for the refuge that best achieves its purposes, vision, and goals; contributes to the National Wildlife Refuge System (Refuge System) mission; adheres to U.S. Fish and Wildlife Service (Service, we, our) policies and mandates; addresses key issues; and incorporates sound principles of fish and wildlife management.

NEPA regulations require an evaluation of a reasonable range of alternatives, including the proposed action and no action. This draft CCP/EA evaluates three alternatives representing different ways to achieve all or most of the criteria noted above. We wrote each alternative assuming its potential to be fully developed into a final CCP. Our analysis includes the predicted socioeconomic, physical, cultural, and biological consequences of implementing each alternative. For the remainder of this report, our Service-preferred alternative, described in detail as alternative B in chapter 3, defines the proposed action.

¹ P.L. 91–190; 42 U.S.C. 4321–4347, January 1, 1970; 83 Stat. 852, as amended

The Purpose of and Need for Action

Developing a CCP with partner and public involvement is vital for successfully managing every national wildlife refuge. The *purpose* of a CCP is to provide strategic management direction for the next 15 years, by:

- stating clearly the desired future conditions of refuge habitat, wildlife, visitor services, staffing, and facilities;
- providing a clear understanding of the reasons for refuge management actions to state agencies, refuge neighbors, visitors, and partners;
- conforming refuge management to the policies and goals of the Refuge System and its legal mandates;



Savannah sparrow nest with young
Photo courtesy of Scott A. Vincent©

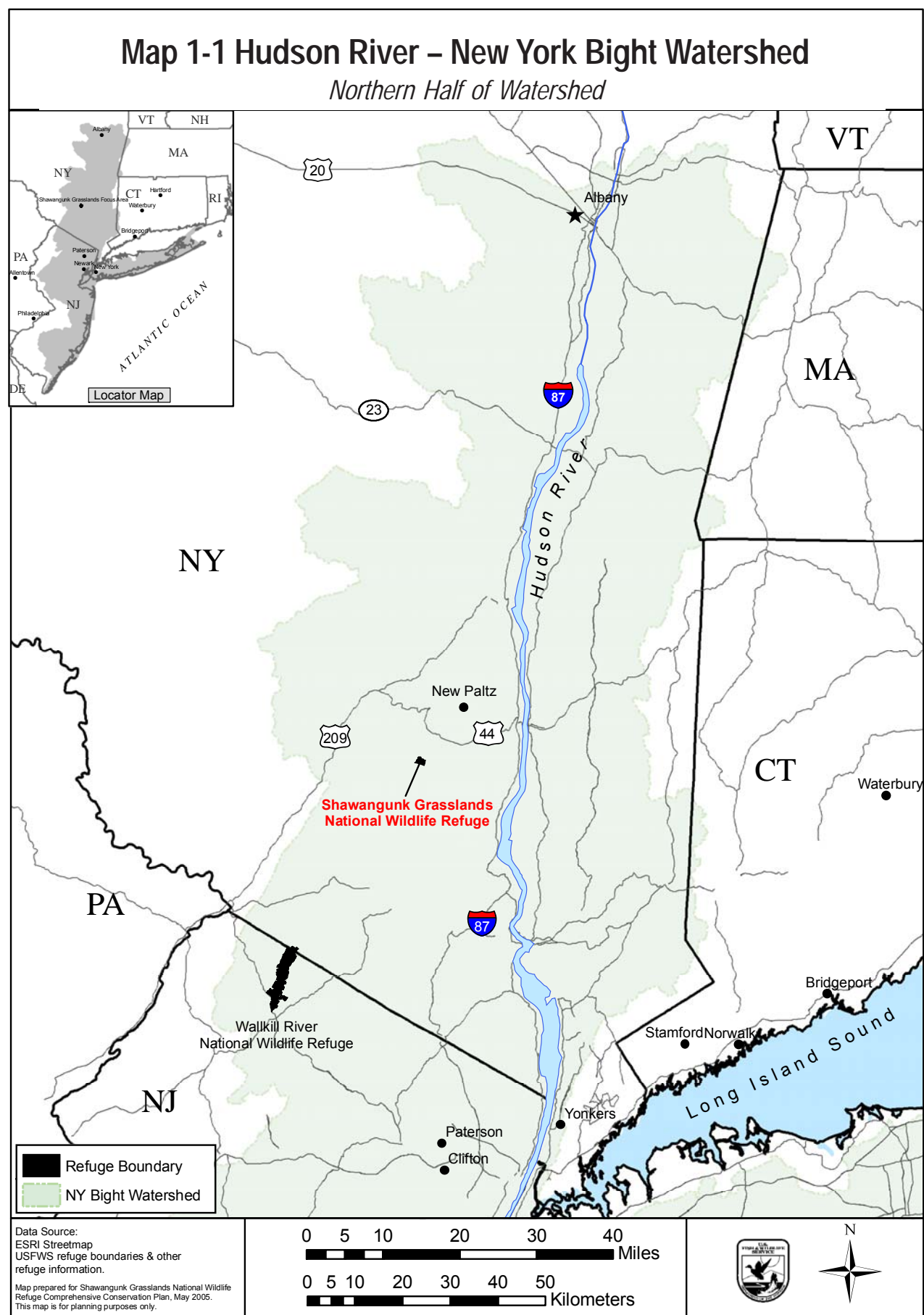
- providing long-term continuity in refuge management;
- ensuring the compatibility of current and future public use; and,
- justifying our staffing, operating and maintenance, and annual budget requests.

The *need* to develop this CCP arose from the lack of a master plan to formally establish refuge management priorities, guide management actions, and measure their success. The refuge is relatively new and has begun establishing relationships with neighboring communities and their elected officials. We have opened the refuge to a few uses, but we wanted a public process to identify other potential compatible uses to evaluate. Having public support for our management actions ultimately will benefit the natural resources of the refuge, the State, and the local community.

The CCP will be reviewed and updated at least every 15 years in accordance with the Refuge Improvement Act and Service planning policy (602 FWS 1, 3 and 4).

Project Area

The 566-acre refuge lies in the Hudson River/New York Bight watershed, in the Town of Shawangunk, Ulster County, New York (map 1–1). The Shawangunk Grasslands Focus Area (focus area) defines our project area, and includes the refuge and contiguous lands with important wildlife habitats that also influence the quality of the refuge's natural resources (map 1–2).

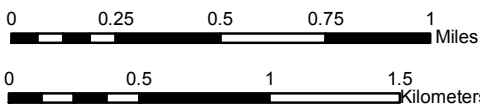


Map 1-2 Shawangunk Grasslands National Wildlife Refuge Focus Area

Ulster County, New York



Data Source:
USGS quad - 1957
USFWS refuge boundaries & other
refuge information.
Map prepared for Shawangunk Grasslands National Wildlife
Refuge Comprehensive Conservation Plan, May 2005.
This map is for planning purposes only.



The Service, its Policies and Legal Mandates

This section highlights the Service, the National Wildlife Refuge System, Service policy, laws, regulations, and mandates that directly influenced the development of this draft CCP/EA.

The U.S. Fish and Wildlife Service and its Mission

The Service, part of the Department of the Interior, administers the Refuge System. The Service mission is

“Working with others, to conserve, protect, and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people.”

Congress entrusts to the Service the conservation and protection of certain national resources: migratory birds and fish, Federal-listed endangered or threatened species, inter-jurisdictional fish, wetlands, certain marine mammals, and national wildlife refuges. We also enforce federal wildlife laws and international treaties on importing and exporting wildlife, assist States with their fish and wildlife programs, and help other countries develop conservation programs.

The Service manual, <http://www.fws.gov/directives/direct.html>, contains the standing and continuing directives to implement its authorities, responsibilities, and activities. Special Service directives that affect the rights of citizens or the authorities of other agencies are published separately in the Code of Federal Regulations (CFR), and are not duplicated in the Service manual. Most of the current regulations that pertain to the Service are issued in 50 CFR parts 1–99, available at <http://www.access.gpo.gov/nara/cfr/index.html>.

The National Wildlife Refuge System, its Mission, and Policies

The Refuge System is the world’s largest collection of lands and waters set aside specifically for the conservation of wildlife and the protection of ecosystems. More than 545 national wildlife refuges are part of that national system today. They encompass more than 95 million acres of lands and waters in all 50 states and several island territories. More than 40 million visitors hunt, fish, observe and photograph wildlife, or participate in environmental education and interpretive activities on refuges across the nation each year.

In 1997, President William Jefferson Clinton signed into law the Refuge Improvement Act. That law established a unifying mission for the Refuge System, a new process for determining compatible public use activities on refuges, and the requirement to prepare CCPs for each refuge. The Refuge Improvement Act states that first and foremost, the Refuge System must focus on wildlife conservation. It further states that the mission of the Refuge System, coupled with the purpose(s) for which each refuge was established, will provide the principal management direction on that refuge. The mission of the Refuge System is

“to administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.”

-Refuge Improvement Act; Public Law 105-57

The Refuge System manual provides a central reference for current policy governing the operation and management of the Refuge System not covered by the Service manual, including technical information on implementing refuge policies and guidelines. That manual can be reviewed at Wallkill River Refuge Headquarters. A few noteworthy policies instrumental in developing this CCP follow.

Refuge System Planning Policy

This policy establishes requirements and guidance for Refuge System planning, including CCPs and step-down management plans. It states that we will manage all refuges in accordance with an approved CCP which, when implemented, will achieve refuge purposes; help fulfill the Refuge System mission; maintain and, where appropriate, restore the ecological integrity of each refuge and the Refuge System; help achieve the goals of the National Wilderness Preservation System; and meet other mandates [Fish and Wildlife Service Manual (602 FW 1,2,3)].



Pond at Shawangunk Grasslands National Wildlife Refuge
USFWS photo

Maintaining Biological Integrity, Diversity, and Environmental Health Policy

This policy provides guidance on maintaining or restoring the biological integrity, diversity, and environmental health of the Refuge System including the protection of a broad spectrum of fish, wildlife, and habitat resources found in refuge ecosystems. It provides refuge managers with a process for evaluating the best management direction to prevent the additional degradation of environmental conditions and restore lost or severely degraded environmental components. It also provides guidelines for dealing with external threats to the biological integrity, diversity, and environmental health of a refuge and its ecosystem (601 FW 3).

Compatibility Policy

Federal law and Service policy provide the direction and planning framework to protect the Refuge System from incompatible or harmful human activities and ensure that Americans can enjoy Refuge System lands and waters. The Refuge Improvement Act is the key legislation regarding management of public uses and compatibility. The compatibility requirements of the Refuge Improvement Act were adopted in the USFWS Final Compatibility Regulations and Final Compatibility Policy, published October 18, 2000 (Federal Register, Vol. 65, No. 202, pp. 62458–62496). This Compatibility Rule changed or modified Service regulations contained in chapter 50, parts 25, 26, and 29 of the Code of Federal Regulations (USFWS 2000c). To view the policy and regulations online, visit <http://policy.fws.gov/library/00fr62483.pdf>. Our summary follows.

The Refuge Improvement Act and its regulations require an affirmative finding by the refuge manager of the compatibility of an activity before it is allowed on a national wildlife refuge. This finding is documented in a report called a “compatibility determination.” A compatible use is one “...that will not materially interfere with or detract from the fulfillment of the mission of the Refuge System or the purposes of the refuge” (Refuge Improvement Act). The Act defines six priority, wildlife-dependent uses that are to be given enhanced consideration on refuges: hunting, fishing, wildlife observation and photography, and environmental education and interpretation. These priority uses may be authorized on a refuge when they are compatible and not inconsistent with public safety. At the time the compatibility determination is made, the refuge manager will insert the required maximum 10-year re-evaluation date for uses other than wildlife-dependent recreational uses, or a 15-year maximum re-evaluation date for wildlife-dependent recreational uses. However, the refuge manager may re-evaluate the compatibility of a use at any time (602 FWS 2, Parts 2.11 and 2.12). For example, a decision may be revisited sooner than the mandatory date, or even before the CCP process is completed, if new information reveals unacceptable impacts or incompatibility with Refuge purposes.

Moreover, not all uses that are determined compatible may be allowed. The refuge manager has the discretion to allow or deny any use based on other considerations such as public safety, policy, or available funding. Nevertheless, all uses that are allowed must be determined compatible. Except for consideration of consistency with State laws and regulations as provided for in subsec-

tion (m) of the Act, no other determinations or findings are required to be made by the refuge official under this Act or the Refuge Recreation Act for wildlife-dependent recreation to occur.

Other Mandates

Although Service and Refuge System policy and each refuge's purpose provide the foundation for its management, other federal laws, executive orders, treaties, interstate compacts, and regulations on the conservation and protection of natural and cultural resources also affect how national wildlife refuges are managed. The *Digest of Federal Resource Laws of Interest to the USFWS* lists many of them, and can be accessed at <http://laws.fws.gov/lawsdigest/indx.html>.

Chapter 4, "Environmental Consequences," evaluates this plan's compliance with the Clean Water Act, Clean Air Act, the National Historic Preservation Act, the Archeological Resources Protection Act, and the Endangered Species Act. We have written this draft CCP/EA to fulfill NEPA compliance.

Conservation Plans and Initiatives Guiding the Project

The resource plans and conservation initiatives below influenced the development of this draft CCP/EA. They are presented hierarchically, from the regional to local level.

Birds of Conservation Concern (2002)

The Service developed this report in consultation with the leaders of bird conservation initiatives and partnerships such as Partners In Flight, the North American Waterbird Conservation Plan, and the U.S. Shorebird Conservation Plan. It fulfills the mandate of the 1988 amendment to the Fish and Wildlife Conservation Act of 1980 (P.L. 100–653, Title VIII), which requires the Secretary of the Interior, through the Service, to "identify species, subspecies, and populations of all migratory nongame birds that, without additional conservation actions, are likely to become candidates for listing under the Endangered Species Act of 1973."

The report is actually a series of 45 lists of bird species of conservation concern deemed the highest priority for national, regional, and landscape conservation. It includes a principal national list, seven regional lists corresponding to our seven regional administrative units, and species lists for each of the 37 Bird Conservation Regions in the United States designated and endorsed by the North American Bird Conservation Initiative (NABCI). Those bird conservation regions are ecologically based units, as defined by NABCI for planning, implementing, and evaluating bird conservation.

These regional and national reports will stimulate coordinated efforts by Federal, state, and private agencies to develop and implement integrated approaches for the conservation and management of these birds deemed to be in the most need of conservation action. We considered each of those species to help us focus our habitat objectives, actions and strategies develop our Species of Management Concern List (appendix A).

Partners In Flight Landbird Conservation Plans

In 1990, Partners in Flight (PIF) was conceived as a voluntary, international coalition of government agencies, conservation organizations, academic institutions, private industry, and other citizens dedicated to reversing the population declines of bird species and “keeping common birds common.” The foundation of its long-term strategy for conserving birds is a series of scientifically based bird conservation plans, using physiographic provinces as the planning units.

The plans for each physiographic area rank bird species according to their conservation priority, describe desired habitat conditions, develop biological objectives, and recommend conservation actions. The priority rankings factor in habitat loss, population trends, and the vulnerability of a species and its habitats to regional and local threats. The physiographic plan that covers our project area is described in more detail below.

Physiographic Area 17—Northern Ridge and Valley (Draft 2003)

The Northern Ridge and Valley extends from southeastern Pennsylvania, through northwestern New Jersey and southeastern New York nearly to the base of the Adirondack Mts. It includes portions of several major river valleys, including the Hudson, Delaware, and Susquehanna Rivers. Ecologically, this is a transitional area, with forested ridges grading from primarily oak-hickory forests in the south to northern hardwood forests further north. Pine-oak woodlands and barrens and hemlock ravine forests are also important along ridges, whereas bottomland and riparian forests are important in the valleys which are now largely cleared for agricultural and urban development. Roughly 50 percent of the physiographic area is forested today, the vast majority occurring at higher elevations. About 40 percent of the area is in agricultural production, primarily a mixture of dairy pastureland and corn. Over 49,420 acres is state forest land in PA and NJ. Other important public lands include High Point State Park (NJ), the Wallkill River Refuge, and this refuge.

The top 17 priority species identified in the Area 17 PIF plan breed on the refuge. Our objectives for grasslands habitat emphasize Henslow’s sparrow, upland sandpipers and bobolink, which are all priority species identified in the PIF plan. The final Area 17 PIF plan is not yet available; however, we referenced the draft plan as we considered management opportunities on the refuge. Draft and final PIF plans can be accessed at <http://www.partnersinflight.org>.

Significant Habitats and Habitat Complexes of the New York Bight Watershed (USFWS 1997)

Completed in 1997, the 1,025-page *Significant Habitats and Habitat Complexes of the New York Bight Watershed* focuses on the regional geographic distribution and population status of more than 1,000 key marine, coastal, and terrestrial species inhabiting this watershed. The geographic scope of the study covers the marine waters of the New York Bight (the Atlantic coastlines of Long Island and New Jersey out to the continental shelf), the New York — New Jersey Harbor Estuary and the entire watershed of the Bight and Harbor, including the Hudson River up to the Troy Dam.

The study assessed the status of habitats, threats to their integrity, and threats to the species dependent upon them. It also determined those habitats and fish, wildlife, and plant populations requiring immediate and long-term protection, conservation, enhancement, or restoration. This habitat assessment is being used to emphasize these regionally important sites to Federal, state, regional, and local planners, resource managers, conservation commissions, regulatory authorities, and the many private conservation organizations throughout the region. We used that study to identify resources of concern and develop management goals and objectives.

**The Hudson River
Estuary Action Plan and
the Hudson River
Biodiversity Project
(2001)**

In 1996, Governor Pataki released the first Hudson River Estuary Action Plan (<http://www.dec.state.ny.us>). Revised every 2 years, it provides the framework for all New York State Department of Environmental Conservation (NYSDEC) agencies and those of other government agencies, academic institutions, and concerned citizens to join resources in protecting the entire Hudson River Estuary ecosystem. That ecosystem includes not only the Hudson River and its shoreline, but also considers the uplands in counties bordering the river.

The action plan's overarching goal is to "protect and conserve, restore and enhance the productivity and diversity of natural resources of the Hudson River estuary to sustain a wide array of present and future human benefits." The New York State legislature has appropriated funding through the Environmental Protection Fund and other sources, such as the Clean Water/Clean Air Bond Act. An oversight committee is responsible for identifying and implementing projects that maintain terrestrial biodiversity in the ecosystem.

Particularly important to the refuge are the plan's tasks associated with terrestrial biodiversity. Action plan 2001 commitments include inventorying and assessing areas thought to have great significance for regional biodiversity and promoting their conservation through voluntary measures; providing training on biodiversity conservation; studying the relationship of breeding bird diversity to habitat patterns and trends in the Hudson Valley; and, continuing the use of biological controls to reduce purple loosestrife. The plan's goals and action items helped our planning team establish management goals and objectives on the refuge.

**New York Open Space
Conservation Plan
(September 2002)**

The New York Open Space Conservation Plan is revised every 3 years by the Offices of Parks, Recreation, and Historic Preservation. Every region in the state has formed an advisory committee that includes representatives from state agencies, land trusts, county officials, and citizens groups. The committees identify priority areas for inclusion in the plan. It is not a regulatory document, but it conveys to municipalities the recommendations of the State of New York for maintaining open space.

The September 2002 plan includes areas of regionally significant biodiversity adjacent to the refuge: the Shawangunk Kill Corridor (Ulster and Orange Counties); the Wallkill River Corridor (Ulster and Orange Counties), and the Galeville Grasslands, which includes the refuge. The descriptions of the significant resources in this plan helped our team establish management priorities and objectives.

Refuge Establishment/History and Purpose**Refuge Establishment History**

In 1994, the United States Military Academy at West Point declared excess to its mission the 621 acres of land containing the former Galeville Military Airstrip in the Town of Shawangunk, Ulster County, New York. We expressed our interest in that land. On July 27, 1999, the General Services Administration transferred at no cost to the Service 566 acres to create a new national wildlife refuge, and subsequently transferred the balance of 55 acres to the Town of Shawangunk to create a community park, under the Federal Lands to Parks Program administered by the National Park Service. We have posted refuge boundary signs to identify the 566-acre refuge; no other lands have been added since it was established. Officially, the transfer of land that established the refuge occurred under the following authorities: the Federal Property and Administrative Services Act of 1949,² which allows for property transfers from one Federal agency to another; and the Transfer of Certain Real Property for Wildlife Conservation Purposes Act of 1948.³

Refuge Purpose

The official purpose listed in the Refuge System database is to provide its "...particular value in carrying out the national migratory bird management program" (16 U.S.C. 667b, An Act Authorizing the Transfer of Certain Real Property for Wildlife). However, this purpose was further refined in a memorandum dated October 17, 1997, to the General Services Administration from our Regional Director, emphasizing the importance of the site to wintering raptors and breeding and migrating grassland birds. The memorandum formally requested the transfer of land and defined the primary reason for establishing the refuge as: "[the site] provides critical habitat for migratory birds and raptors. More than 120 species of birds have been identified at the Site. It supports approximately 20 species of Federal or State 'management or special concern.'"

Refuge Administration

This refuge is un-staffed. It is administered by staff from the Wallkill River Refuge Headquarters in Sussex, New Jersey.

² 40 U.S.C. 471et seq., repealed by Public Law 107-217, August 21, 2002

³ 16 U.S.C. 667b; P. L. 80-537, as amended

Existing Refuge Operational Plans

Step-Down Plans

The Service Manual (602 FW 4, “Refuge Planning Policy”) lists more than 25 step-down management plans that may be appropriate for a refuge to ensure safe, effective and efficient operations. However, not all of these plans are necessary on every refuge. The plans translate general goals and objectives into specific strategies and action schedules. Some require annual revision; others are revised on 5- or 10-year schedules. Some require additional NEPA analysis, public involvement, and compatibility determinations before we can implement them. These step-down management plans, already underway, are scheduled for completion as follows:

- Habitat Management Plan (HMP, our highest priority; within 1 year of CCP approval)
- Habitat and Species Monitoring and Inventory Plan (HSMIP; within 2 years of CCP approval)
- Fire Management Plan (included in this draft CCP; appendix F)

Compatibility Determinations

Appendix B includes draft compatibility determinations for priority public uses and several other refuge uses we propose for the refuge. In addition, we have included the final compatibility determination for model airplane flying and model airplane competitive events, approved and dated February 20, 2002, which determined these activities were not compatible with the refuge purposes or the mission of the Refuge System. This use is described in more detail in chapter 2, Affected Environment. We are incorporating this existing decision on model airplane flying and model airplane competitive events into the CCP (appendix B).

Refuge Vision Statement

Early in the planning process, our team developed this vision statement for the refuge to provide a guiding philosophy and sense of purpose for its plan.

The Shawangunk Grasslands National Wildlife Refuge, located in Ulster County, New York, provides exceptional grassland habitat within the Wallkill River watershed, a major tributary to the Hudson River. We will enhance and sustain this high quality habitat for the full complement of grassland-dependent birds that breed, winter and migrate through, the watershed. Other native grassland-dependent animals and regionally rare plants benefit from our management as well. With easy public access to the refuge’s managed grasslands, and because of the open vistas the grasslands afford, it is an ideal setting for wildlife observation, nature photography, and environmental interpretation. All visitors will feel welcomed and encouraged to enjoy and appreciate the contribution of this refuge to the National Wildlife Refuge System.

Refuge Goals

Our planning team developed these goals after reviewing the Refuge System mission, the purpose of the refuge, our vision statement, public and partner comments, policy guidelines, and natural and regional conservation initiatives.

Goal 1. Protect and enhance habitats for Federal trust species and other species of special management concern, with particular emphasis on grassland-dependent migratory birds and wintering raptors.

Goal 2. Manage to enhance regionally significant ecological communities, including large grassland complexes.

Goal 3. Promote actions which contribute towards a healthier Wallkill River.

Goal 4. Provide high quality opportunities for wildlife observation and photography, and other priority, wildlife-dependent uses.

Goal 5. Cultivate a public informed and educated about conservation who work to support the goals of the refuge and the mission of the National Wildlife Refuge System

The Comprehensive Conservation Planning Process

Service policy establishes an eight-step planning process that also facilitates compliance with NEPA (see figure 1.1, below).⁴ Each of its individual steps is described in detail in the planning policy and CCP training materials. While the figure suggests these steps are discreet, there can be 2-3 steps happening concurrently.

Planning Process

We started this planning process in 1998 as a combined CCP for both the Wallkill River and Shawangunk Grasslands refuges. The core team was composed of a Regional planner, Regional Resource Specialist, refuge staff, and representatives from NJ DEP and NYSDEC. The core team first convened in February 1999.

Our early meetings consisted of detailing the steps in the planning process for this project and collecting information on natural resources and public uses that pertained to each refuge.

As part of “Step A: Preplanning,” we also developed a preliminary refuge vision statement, management goals, and identified issues and management concerns. During that step, we also began a wilderness review of existing refuge lands.

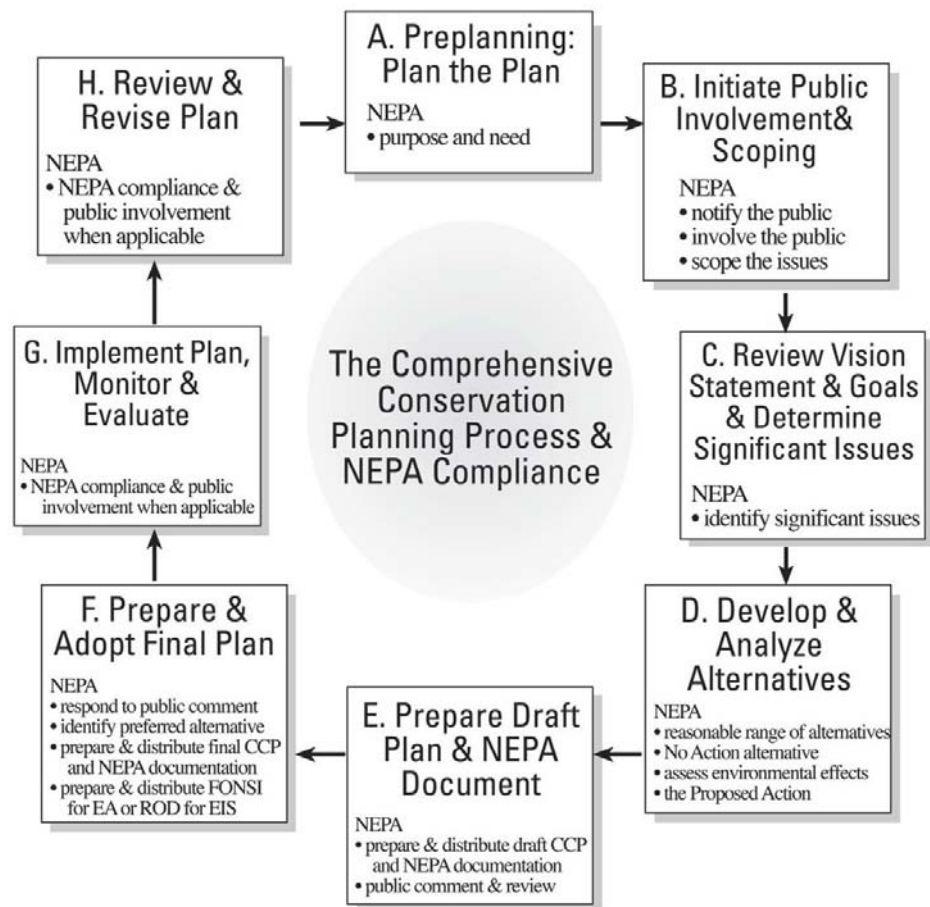
Our wilderness review evaluates the suitability of refuge lands for inclusion into the National Wilderness Preservation System (NWPS). The review consists of three phases: (1) inventory, (2) study, (3) recommendation. We inventoried all 566 acres of refuge lands in fee title ownership and found no areas that meet the eligibility criteria for a wilderness study area as defined by the Wilderness Act. Therefore, suitability of refuge lands for wilderness designation is not analyzed further in the CCP. The results of the wilderness inventory are included in appendix C.

⁴ 602 FW 3, “The Comprehensive Conservation Planning Process” (<http://policy.fws.gov/602fw3.html>)

Also in early 1999, we compiled a mailing list of approximately 3,000 names, including organizations, elected officials, state agencies, individuals, and adjacent landowners, to ensure that we would be contacting a diverse sample of interested groups as we progressed through the process.

Next, we began step B, “Initiate Public Involvement and Scoping,” which provided an opportunity for the public to critique or add to the vision, goals, and issues we drafted. In May 1999, we developed issues workbooks to solicit written comments on topics related to the management of the refuge. We realized not everyone could attend planned Open House meetings scheduled for later in May and in June, so the issues workbooks provided an opportunity to reach a larger audience. Workbooks were sent to everyone on our mailing list; were available at the Refuge Headquarters; and were offered to people every time our refuge staff participated in a public function. We received 337 workbooks completed with responses. Those responses strongly influenced our formulating issues and developing alternatives on resource protection and public use.

Figure 1.1 The Comprehensive Conservation Planning Process and its relationship to the National Environmental Policy Act of 1969.





Eastern Bluebird

Photo courtesy of Scott A. Vincent©

In May and June 1999 we held seven Open Houses: two in Sparta, NJ; two in Vernon, NJ; two in Wallkill, NY; and, one in Warwick, NY. We advertised those open houses locally in news releases, radio broadcasts, and notices to our mailing list. More than 50 people attended those meetings. We also organized several separate meetings with conservation partners and state agencies to discuss shared issues.

In October 1999, we released our “Fall 1999 Planning Update” to everyone on our mailing list. That update summarized the public comments we had received from meetings and issues workbooks, identified the key issues we would be dealing with in the CCPs, and shared revised vision statements and goals.

Once we had firmed up the key issues in October, we began step D, “Develop and Analyze Alternatives.” The purpose of this step is to develop alternative strategies for addressing and resolving each issue on both refuges. We derived the management alternatives described in chapter 3 from those strategies, public comments, our goals and refuge purposes.

At this stage, we identified and mapped ecologically important lands in the vicinity of the refuge or connected to the Wallkill River valley. Using the expertise of our Connecticut River/Southern New England/New York Bight Coastal Ecosystems

Program office and wildlife biologists with NYSDEC, we determined areas of high biodiversity important to our Federal trust resources, including areas with rare or declining wildlife species or plant communities, wetlands, and contiguous grasslands larger than 150 acres. Those areas of high biodiversity were mapped as focus areas.

We identified a Shawangunk Grasslands Focus Area, 5,950 acres in size, surrounding the refuge (map 1–2). In our opinion, land uses in this focus area could have a direct effect on our ability to fully meet our refuge goals and objectives. Unfortunately, some of that area now has been developed and has lost its significance to wildlife.

Despite our interest in seeing these lands protected, none of the alternatives propose Service acquisition of additional lands at this time. We do not feel there is enough local community support for a refuge expansion, and from our Regional perspective, with all our other land protection priorities, it is doubtful we would be able to secure funding to buy additional lands here or hire staff to

manage those lands. Instead, we plan to work with adjacent landowners and other partners to facilitate land conservation within the focus area. However, if favorable conditions arise in the future to make Service land acquisition in this area possible, we may pursue it under a separate environmental assessment and public review.

At follow-up meetings in 2000, we shared our proposed alternatives with conservation partners, state agencies, and the public. We distributed another newsletter in January 2002 that outlined four management alternatives. Through further analysis, we reduced those alternatives to three. In chapter 5, “Consultation and Coordination with Others,” you will find a detailed summary of each public involvement activity.

In November 2002, we determined it would be more efficient to separate our planning efforts for Wallkill River and Shawangunk Grasslands refuges, with priority given to completing a CCP for this refuge. This document is the result of that effort and completes Step E: “Prepare Draft Plan and NEPA Document.”

After a 45-day public review of this draft CCP/EA, we will review and analyze all written and oral comments on the draft document. A summary of all substantive comments and our disposition of the comments will be documented in an appendix to the Final CCP. The Final CCP will also identify the Service-preferred alternative. A Finding of No Significant Impact (FONSI) will be written to certify that the Final CCP has met agency compliance requirements and will achieve refuge purposes and help fulfill the Refuge System mission. We will then submit the Final CCP and FONSI to the Regional Director for review and approval. Once approved, these documents will be made available to all interested parties. As soon as the Regional Director has approved the final CCP, we can start implementing it.

Issues, Concerns, and Opportunities

From planning team discussions, public and focus group meetings, and public responses to our issues workbooks, we compiled the issues and concerns that we heard and categorized them as follows.

Key issues.—These are unresolved public, partner, or Service concerns without obvious solutions supported by all. Along with goals, key issues form the basis for developing and comparing the different management alternatives. The wide range of opinions on how to address key issues in a way consistent with refuge goals and objectives generated the varying alternatives we analyze in chapter 3, “Alternatives.” The key issues listed below also share this characteristic: the Service has the jurisdiction and the authority to address them.

Issues and concerns outside the scope of this analysis.—These issues fall outside the scope of this document, or outside the jurisdiction or authority of the Service. Although we discuss them briefly below, we do not address them further in this document.

Key Issues

1. Which species should be a focus for management, and how will the refuge promote and enhance their habitats?

Congress entrusts the Service with protecting Federal-listed endangered or threatened plant and animal species, anadromous and inter-jurisdictional fish species, migratory birds, and certain marine mammals, and mandates their treatment as management priorities when they occur on a refuge. Appendix A identifies Federal trust resources on the refuge, as well as other species and habitats of special management concern.

Although we know of no Federal-listed species on the refuge, it does provide significant habitat for certain migratory birds. The challenge we face with migratory bird management is determining how a refuge can significantly contribute to the conservation of migratory bird species of concern. An important question we must answer is “Which migratory bird species and habitat types should be management priorities on the refuge?” Placing management emphasis on certain species or species groups may preclude emphasis on other migratory bird species of concern.

For example, our emphasis on managing habitat for grassland-dependent birds would reduce the potential for shrub-dependent or forest-dependent birds also in decline throughout PIF Area 17. Each of the alternatives associates management with certain migratory bird species, and discusses the foreseeable impacts on other species of concern. Addressing this issue will help support refuge goals 1, 2, and 3.

2. How will the refuge manage for regionally significant ecological communities, including the Wallkill River and its associated wetlands?

Several habitat types present on the refuge have been identified as ecologically significant because of their biological diversity, their relative scarcity throughout the Hudson River ecosystem, or their ability to support a complex of species that are regionally declining. Besides the Wallkill River and its tributaries, large grassland complexes (>150 acres) are recognized as regionally important for their biological diversity.

Service policy (601 FW 3) requires us to maintain existing levels of biological integrity, diversity, and environmental health on refuge lands. If necessary, we are to restore lost or degraded habitats, using historical conditions as a frame of reference to identify composition, structure, and functional processes that naturally shaped ecosystems and habitat types. Which habitat types we emphasize in management varies among the alternatives, influencing the timing and the extent of our fulfilling those policy requirements. Addressing this issue will help support refuge goals 1, 2, 3 and 4.

3. How will the refuge manage invasive, exotic, or overabundant species?

Invasive plants out-compete native species by dominating light, water, and nutrient resources. Species such as purple loosestrife (*Lythrum salicaria*), Phragmites (*Phragmites australis*), garlic mustard (*Alliaria petiolata*), Canada thistle (*Cirsium arvense*), multiflora rose (*Rosa multiflora*), and reed canary grass (*Phalaris arundinacea*) threaten refuge habitats by displacing native plant and animal species, degrading wetlands and other natural communities, and reducing natural diversity and wildlife habitat values. Those plants are particularly a menace when they impact the viability of native species of concern, such as some of the rare plant species on the refuge.

Once they have become established, getting rid of invasive plants is expensive and labor intensive. Their characteristic ability to easily establish, prolifically reproduce, and readily disperse makes eradicating them difficult. Many of them cause measurable economic impacts, especially in agricultural fields. Preventing new invasions is extremely important for maintaining biological diversity and native plant populations. Controlling them in existing, affected areas will require extensive partnerships with adjacent landowners, state, and local governments. Each of the alternatives will present actions and commit varying levels of resources to controlling invasive plants.

Several wildlife species on the refuge may be adversely affecting natural biological diversity and we need to monitor any impacts. Native species such as deer, resident Canada geese, and small furbearing mammals such as foxes, raccoons, and woodchucks can be a problem when their populations exceed the range of natural fluctuation and the ability of the habitat to support them. Management issues arise when they adversely affect Federal trust species or degrade natural communities. In particular, small mammalian predators destroy migratory bird nests. While some level of predation in a natural system is expected, concerns arise when that predation prevents our meeting conservation objectives.

Adverse economic impacts can arise when deer or Canada geese forage on landscaping or agricultural fields. Excessively high populations of deer, fox or raccoon also can compromise human health and safety. Greater numbers of vehicle-deer collisions or cases of Lyme disease and rabies all raise community concerns. Not all of those situations exist now on the refuge, but they may surface soon, as surrounding lands become developed and animals are forced to concentrate on or near the refuge. The alternatives compare different management strategies for those target species. Some of the control measures for each species are controversial; they may include visual or audio deterrence, the destruction of nests or dens, or lethal means. Addressing this issue will help support refuge goals 1 and 2.

4. What opportunities for hunting will the refuge provide?

During public scoping we learned that opinions on hunting ran the full spectrum, from those totally opposed, to those advocating opening the refuge to all State hunting seasons. The Refuge Improvement Act of 1997 stipulates hunting on refuges as one of the six priority public uses to receive our enhanced consideration. The Service also views hunting as an effective management tool in controlling overabundant or invasive wildlife species.

However, a segment of the local community continues to oppose hunting, based on concerns about safety, disturbances, harm to non-target wildlife, and the impact on visitors engaging in other priority public uses. Others opposed to hunting feel that the refuge should function as a complete sanctuary for all native species, and that hunting is incongruous with managing a refuge.

Some support hunting only when it is needed for population control, and not as a recreational activity. Still others fully support it, including the NYSDEC, who would like to see more hunting on the refuge in conformance with State hunting seasons.

The refuge is not currently open to hunting, but local residents indicate that deer and small game hunting occurred under previous ownerships. Some adjacent landowners were opposed to hunting, expressing a concern about their own safety, especially if a rifle season were allowed. Other individuals indicated a concern about the safety of hunters, since buried drainage structures on the refuge could be hazards.

As we considered whether or not to provide a hunting program in each alternative, our foremost consideration was for public safety. Given these safety concerns, and other resource concerns, the alternatives in chapter 3 propose either the current hunting prohibition, or an archery deer hunt. Other hunting seasons were considered but eliminated as described in chapter 3. Addressing hunting opportunities will help support refuge goal 4.

5. How will the refuge provide opportunities for other compatible, wildlife dependent uses and accommodate their occasional conflicts?

The 1997 Refuge Improvement Act requires our enhanced consideration of opportunities for six priority wildlife-dependent recreational uses—hunting, fishing, wildlife observation and photography, and environmental education and interpretation—when they do not conflict with the mission of the Refuge System or the purposes for which the refuge was established. However, the Act establishes no hierarchy among the six priority uses and, unfortunately, they sometimes conflict.

Some people expressed concerns that refuge resources may be disproportionately allocated toward one use to the detriment of others. An additional challenge for the refuge manager is determining the capacity of the refuge to support those uses and still provide a quality experience for visitors. For example, some people would prefer that the runways be maintained for walking while others

prefer that most of them be removed and restored to grasslands. The alternatives evaluate different combinations and levels of priority public use, and the resources to support them. Addressing this issue will help support refuge goals 4 and 5.

A few public uses that historically occurred on the refuge are not priorities, nor wildlife-dependent, and we have determined they are not compatible with the refuge purposes and management priorities. One activity in particular, model airplane flying, received a lot of attention when the refuge was established. Chapter 2 describes the history of that issue in greater detail. Also in Chapter 2, we describe our concerns with non wildlife-dependent activities drifting onto the refuge with the Town of Shawangunk's proposed 55-acre park and athletic fields on the refuge's north boundary.

6. Should we consider a refuge expansion to protect additional habitat areas?

Northern New Jersey and south-central New York have become commuter communities for cities to the south. Two-hour commutes are now commonplace. According to a June 19, 2005 editorial in the Poughkeepsie Journal, there is concern about the loss of open space and farmland in Ulster County due to demographic changes. The town of Gardiner, for example, experienced a population growth of more than 20% in the last 10 years. That growth, which places extreme pressure on natural resources, is now threatening the county's natural areas; many are becoming isolated islands of habitat, so fragmented that they can no longer support their full diversity of native wildlife and plant species. Species that require large, contiguous areas of natural habitat are the first to suffer. The Town of Shawangunk is developing a comprehensive plan that will include an analysis of current and future needs for open space. Public meetings indicate broad public support for the concept, but no consensus on how much open space is enough. It is also important to recognize the "open space lands" does not necessary equate with lands of greatest wildlife values.

During our scoping process, we heard from many individuals encouraging the Service to expand the refuge within the focus area for a variety of reasons, including their concern about the rapid rate of development, the increased burden on their communities' services brought on by that development, and their communities' loss of rural character. Some acknowledged the necessity and the direct benefits of maintaining land in its natural state afforded by refuges. They recognized that wetlands are essential habitat for wildlife, lessen the damage from flooding, and naturally break down contaminants in the environment. They also recognized that forests and grasslands protect the quality of our drinking water, help purify the air we breathe, and provide important areas for outdoor recreation.

⁵ 16 U.S.C. 715s, June 15, 1935, as amended

On the other hand, the fact that 29% of Ulster County is now held in non-taxed ownership, including the refuge, state prisons, religious communities, and non-profit organizations, is a concern to many people. Some elected officials hold mixed opinions about this tax burden on their communities. They feel that increased Federal ownership will adversely affect property tax revenues. Federal lands are not taxed. However, the Refuge Revenue Sharing Act⁵ helps offset the loss of tax revenue through refuge revenue sharing payments to towns, at a maximum rate of three-quarters of 1 percent of the appraised value of refuge land.

As we described under “Planning Process”, none of the alternatives propose an expansion of the current approved boundary. However, they do compare various levels of Service involvement in identifying important habitats that need protection or cooperative management on private lands in the area. In addition, nothing in the alternatives precludes our pursuing land acquisition in the future, after additional NEPA analysis and public involvement. For example, the 55 acres deeded to the Town of Shawangunk for use as a town park, immediately adjacent to the refuge’s northern boundary, may become a priority for Service acquisition should the town ever determine it excess to their needs. While none of the alternatives proposes acquisition of this tract, should the opportunity arise, we would seek its acquisition. Addressing this issue will help support refuge goals 1, 2, and 3.

7. How will the refuge cultivate an informed and educated public to support the mission of the Service and the purposes for which the refuge was established?

Community involvement in supporting the Refuge System is very important and very rewarding. It helps people understand what we are doing, why we are doing it, and how we can work together to improve our communities. Refuge outreach ties us to local communities and promotes an interest in conserving natural resources. The challenge lies in determining how best to reach out to raise refuge visibility and cultivate relationships in local communities. Some people advocate opening more refuge programs to the public; others desire a “Friends of the Refuge” Group; still others promote refuge staff involvement in established community events, government committees, and conservation organizations. The alternatives explore those options and evaluate the resources necessary to implement them. Addressing this issue will help support refuge goals 3 and 5.

8. How will we reduce the potential hazards from the underground drainage system?

On the refuge there is an extensive system of cement culverts that was installed to drain water from the air field which are collapsing, and in some cases are open and exposed. This may represent a safety hazard especially for our staff doing habitat management work or for visitors authorized to walk off the designated trail. All the alternatives consider various ways to address this issue and other potential safety hazards left from former uses of the area. Addressing this issue will help support goal 4.

9. How will the refuge obtain the necessary staffing and funding to maintain infrastructure and complete priority projects?

For the foreseeable future, this refuge will continue to be maintained as an unstaffed satellite refuge under the administration of the Wallkill River refuge. Some people expressed concerns about the ability of Wallkill River refuge staff to maintain infrastructure and implement programs and projects on this refuge given the current level of funding.

Some are concerned that any new proposals in this CCP will be substantially above current budget allocations, thus raising unrealistic expectations. It was pointed out that budgets can vary widely from year to year since they depend on annual Congressional appropriations. Other people supported our pursuit of new management goals, objectives, and strategies in the hopes that the CCP will establish new partnerships and funding sources. In fact, some people recommend a visitor contact facility be maintained throughout the year on the refuge. A “Friends Group” was suggested as one way to get assistance with funding and implementation.

In developing each alternative, we identified seasonal staffing positions and funding levels necessary to implement its proposed actions over the next 15 years. In all alternatives, we are recommending the essential staffing levels already approved for the refuge be implemented (appendix E). All positions assigned to the refuge are currently vacant. Appendix D presents our Refuge Operating Needs (RONS) and Management Maintenance System (MMS) projected needs. These databases are updated regularly, and in fact, we are transitioning in 2005 to replace the MMS database with the Service Asset Maintenance Management System (SAMMS) database. Addressing this issue will help support all refuge goals.

Issues Outside the Scope of this Environmental Assessment

Development and local zoning

Many people indicated they are greatly concerned about urban sprawl, the rate and location of development, and the loss of habitat and resulting increased habitat fragmentation near refuge lands. Some wanted zoning for agriculture or something other than residential or commercial development. The authority of the Service does not extend to local zoning. However, we are working with adjacent towns to identify important wildlife habitats that need protection.

Pollution Control

Many refuge neighbors expressed their concern about poor water quality in the Wallkill River and their belief that it has steadily declined over the past years. Some attributed that decline to the use of herbicides and pesticides on agricultural fields and its relationship to the levels of DDE in the river, the highest in any Hudson River tributary. Others expressed their concerns about the effects of town wastewater treatment and pollution from farm operations.

The Service has no jurisdiction, unless polluters are directly impacting Federal trust resources. However, our staff will continue to work with the Wallkill River Task Force and participate in local community planning to promote the best management and restoration practices to benefit water quality and the wetlands of the river and its tributaries.



American woodcock
USFWS photo